

Claims

1. Knitted fabric with loops which are formed from yarn material (4) containing staple fibres (6), **characterised in that** the yarn material (4, 7) contains a continuous fibre web (5) in which the staple fibres (6) are disposed untwisted and essentially parallel to each other.
2. Knitted fabric according to claim 1, **characterised in that** the yarn material (4) is formed exclusively from the fibre web (5).
3. Knitted fabric according to claim 1, **characterised in that** the yarn material (7) is formed from the fibre web (5) and at least one auxiliary yarn (8, 9).
4. Knitted fabric according to claim 3, **characterised in that** the auxiliary yarn is a monofilament (8) or a multifilament (9).
5. Knitted fabrics according to claim 3 or 4, **characterised in that** the auxiliary yarn (8, 9) extends parallel to the fibre web (5) and is not twisted with the latter.
6. Method for producing a knitted fabric, **characterised in that** a yarn material (e.g. 4, 7), directly after its production, is processed immediately into loops by knitting.
7. Method according to claim 6, **characterised in that** the yarn material (4, 7) is taken from drawing equipment (14) and processed directly at the outlet of the drawing equipment (14) into loops.
8. Method according to claim 7, **characterised in that** the yarn material exiting from the drawing equipment (14) is firstly spun into an unconventional yarn (21) and only then is processed into loops.
9. Method according to claim 8, **characterised in that** strength is given to the yarn (21) by the spinning process which suffices precisely for its transport

from the drawing equipment (14) to a knitting point (16) on a knitting machine.

- 5 10. Method according to claim 8, **characterised in that** the yarn material exiting from the drawing equipment (14) is spun into a yarn (25) with typical twists, is transported in this state to a knitting point (16) on a knitting machine and then, before it is processed into loops, is changed back into an untwisted fibre web (32) by the false twist effect.
- 10 11. Method according to claim 10, **characterised in that** the yarn (25) is left to itself between a yarn guide (30) and the knitting point (16) and consequently is changed back into the untwisted state.
- 15 12. Method according to one of the claims 6 to 11, **characterised in that** the yarn material, before the beginning of a knitting process, is placed by suction transversely over a path to be described by the needles (17) of a knitting machine and is retained in this position, and in that the knitting process is then begun in that the needles (17) are moved along the path and are thereby extended to receive the yarn material.
- 20 13. Method according to claim 12, **characterised in that** one end of the yarn material retained by suction is cut off at the latest after introduction of the extension of the needles (17).
- 25 14. Method according to one of the claims 6 to 13, **characterised in that** a yarn material (7) is used, the fibre web (5) of which is provided with an additional auxiliary yarn (8).
- 30 15. Method according to claim 14, **characterised in that** the knitting process is introduced in that firstly the auxiliary yarn (8) alone is processed into loops until the knitted fabric has a pre-selected length, and in that only then is the fibre web (5) also processed into loops.

16. Device for producing a knitted fabric, containing a knitting machine provided with knitting needles (17) and at least one knitting point (16) for processing a yarn material (4, 7) supplied to it into loops (1) and a mechanism for supplying the yarn material (4, 7), **characterised in that** the mechanism contains drawing equipment (14) for producing the yarn material (4, 7).
17. Device according to claim 16, **characterised in that** the drawing equipment (14) has delivery rollers (12) which are disposed at a spacing from the knitting point (16), said spacing being smaller than or equal to the maximum staple length in the fibre web (5).
18. Device according to claim 16 or 17, **characterised in that** a yarn guide (15, 24, 30) is disposed between the drawing equipment (14) and the knitting point (16).
19. Device according to claim 18, **characterised in that** a suction element (18) is disposed on a side of the needles (17) which is orientated away from the yarn guide (15, 24, 30).
20. Device according to claim 18 or 19, **characterised in that** the delivery rollers (12) are provided with delivery belts (19) which have a clamping point (20) for the yarn material (4) which is disposed closely in front of the yarn guide (15).
21. Device according to one of the claims 18 to 20, **characterised in that** a spinning device intended to produce an unconventional yarn (21) is disposed between the delivery rollers (12) and the knitting point (16), said spinning device containing a spinning element (22) and a pipe (23) which is connected to the latter, ends at the yarn guide (24) and guides the yarn (21).
22. Device according to one of the claims 18 to 20, **characterised in that** a spinning device intended to produce a temporary yarn (25) is provided

between the delivery rollers (12) and the knitting point (16), said spinning device containing at least one twisting element (26) and a spinning pipe (29) which is connected to the latter and ends at the yarn guide (30).

- 5 23. Device according to claim 22, **characterised in that** the spinning device contains a plurality of twisting elements (26a, 26b, 26c) which have the same direction of rotation.
- 10 24. Device according to claim 23, **characterised in that** the twisting elements (26a, 26b, 26c) are operated with air pressure, a central twisting element (26b) being operated at the highest air pressure, a twisting element (26a) close to the drawing equipment (14) at the lowest air pressure and a twisting element (26c) close to the yarn guide (30) at an average air pressure.
- 15 25. Device according to claim 23 or 24, **characterised in that** the twisting element close to the drawing equipment (14) and the central twisting element (26a, 26b) can be stopped after spinning of the temporary yarn (25).
- 20 26. Device according to one of the claims 22 to 25, **characterised in that** a ventilation opening (34) is assigned to at least one spinning pipe (29).
- 25 27. Device according to claim 22, **characterised in that** the twisting element is a mechanical rotary tube.
28. Device according to one of the claims 16 to 27, **characterised in that** it has a means for supplying an auxiliary yarn (8) to the yarn material (7).
- 30 29. Device according to claim 28, **characterised in that** the means contains a supply pipe (34) which is disposed in front of the delivery rollers (12) and supplies the auxiliary yarn (8) to the spinning device.

30. Device according to one of the claims 16 to 29, **characterised in that** the knitting machine is a circular knitting machine, at the circumference of which a plurality of groups of drawing equipment (14.1 to 14.3) is disposed.
- 5 31. Device according to claim 30, **characterised in that** dead zones (39) free of active knitting points (16) are provided at the circumference of the circular knitting machine.
- 10 32. Device according to one of the claims 19 to 31, **characterised in that** a separating device (48) is assigned to the suction element (18).
- 15 33. Device according to one of the claims 16 to 32, **characterised in that** a can (38) filled with a roving is assigned to the drawing equipment (14) and a transport mechanism (43) for the roving is provided between the can (38) and the drawing equipment (14).
- 20 34. Device according to one of the claims 28 to 33, **characterised in that** a purveyor (45) is disposed between the supply pipe (34) and a supply spool (46) for the auxiliary yarn (8).
35. Device according to claim 34, **characterised in that** the purveyor (45) has a pressure roller (51) and a drive roller (52) provided with a free wheel (54).
- 25 36. Device according to claim 35, **characterised in that** the drive roller (52) is actuated at a lower circumferential speed than the delivery rollers (12).